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Atty. Docket No.: 22085/2112

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Timperman
Serial No.: 10/784,393
Filed: February 23, 2004
Entitled: Apparatus and Method for On-Chip
Concentration Using a Microfluidic
Device with an Integrated
Ultrafiltration Membrane Structure

Examiner: Not Yet Assigned

Group Art Unit: 1744

Conf. No.: 8432

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8a

I hereby certify that this correspondence (and any paper or fee referred to as being enclosed) is being deposited with the United States Post Office as First Class Mail on the date indicated below in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Michael P. Doyle

Name of Person Mailing Paper

Signature of Person Mailing Paper

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Enclosed for filing in the above-identified patent application, please find the following documents:

1. Information Disclosure Statement;
2. Form PTO-1449 listing 42 references;
3. Copies of 32 Non-U.S. References; and
4. Return Post Card.

The Commissioner for Patents is hereby authorized to charge any fees to Deposit Account No. 16-0085, Reference 22085/2112. A duplicate of this transmittal letter is enclosed for this purpose.

Respectfully submitted,

Date: July 29, 2004

Name: Michael P. Doyle
Registration No.: 49,052
Customer No.: 29932
Palmer & Dodge LLP
111 Huntington Avenue
Boston, MA 02199-7613
Tel: 617-239-0100



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**INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §§ 1.56, 1.97 AND 1.98**

Dear Sir:

In accordance with the duty of disclosure under 37 CFR § 1.56, Applicant submits this Information Disclosure Statement pursuant to 37 CFR §§ 1.97 and 1.98 in the above-identified application for consideration by the Patent Office.

A listing of the cited documents, as well as, for the Examiner's convenience, copies of all foreign patent documents and non-patent literature are enclosed. This application was filed after June 30, 2003, and copies of U.S. patents and U.S. patent applications are not required and are not enclosed.

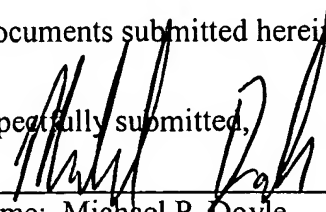
Pursuant to CFR § 1.97(b)(3), because this Statement is being submitted before the first Office Action on the merits, no fee is required.

Applicant does not intend to represent that any of the documents submitted herein are material prior art to this invention or that the list represents an exhaustive search of documents related to this invention.

Applicant respectfully requests that the documents submitted herein be considered and made of record in this application.

Date: July 29, 2004

Respectfully submitted,


Name: Michael P. Doyle
Registration No.: 49,052
Customer No.: 29932
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111 Huntington Avenue
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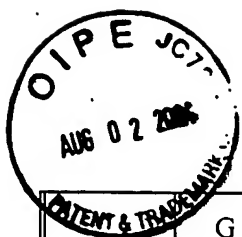


USPTO Form 1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT				Attorney Docket No. 22085/2112		Serial No. 10/784,393	
				Applicant(s): Timperman			
				Filing Date: February 23, 2004		Group: 1744	

U.S. PATENT DOCUMENTS							
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		5,599,432	February 4, 1997	Manz et al.	204	451	November 8, 1994
		5,942,093	August 24, 1999	Rakestraw et al.	204	450	June 18, 1997
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		6,274,089	August 14, 2001	Chow et al.	422	101	June 8, 1998
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FOREIGN PATENT DOCUMENTS								
Examiner Initial		Document No.	Publication Date	Country	Class	Subclass	Translation	
							YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
	A	Chen et al., <u>A Planar Electroosmotic Micropump</u> , 2002, Journal of Microelectromechanical Systems, Vol. 11, No. 6, 672-683
	B	Chien et al., <u>Electroosmotic Pumping in Microchips with Nonhomogeneous Distribution of Electrolytes</u> , 2002, Electrophoresis, Vol. 23, 1862-1869.
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	D	Figeys et al., <u>Optimization of Solid Phase Microextraction-Capillary Zone Electrophoresis-Mass Spectrometry for High Sensitivity Protein Identification</u> , 1998, Electrophoresis, Vol. 19, 2338-2347
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G	Harrison et al., <u>Capillary Electrophoresis and Sample Injection Systems Integrated on a Planar Glass Chip</u> , 1992, Anal. Chem., Vol. 64, 1926-1932
H	Jacobson et al., <u>Effects of Injection Schemes and Column Geometry on the Performance of Microchip Electrophoresis Devices</u> , 1994, Anal. Chem., Vol. 66, 1107-1113
I	Khandurina et al., <u>Microfabricated Porous Membrane Structure for Sample Concentration and Electrophoretic Analysis</u> , 1999, Anal. Chem., Vol. 71, 1815-1819
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L	Licklider et al., <u>Characterization of Reaction Dynamics in a Trypsin-Modified Capillary Microreactor</u> , 1998, Anal.Chem., Vol. 70, 1902-1908
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Q	Liu et al., <u>Two-Dimensional Separations: Capillary Electrophoresis Coupled to Channel Gel Electrophoresis</u> , 1996, Anal. Chem., Vol. 68, 3928-3933
R	McKnight et al., <u>Electroosmotically Induced Hydraulic Pumping with Integrated Electrodes on Microfluidic Devices</u> , 2001, Anal. Chem., Vol. 73, 4045-4049.
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T	Oleschuk et al., <u>Trapping of Bead-Based Reagents within Microfluidic Systems: On-Chip Solid-Phase Extraction and Electrochromatography</u> , 2000, Anal. Chem., Vol. 72, 585-590
U	Opiteck et al., <u>Comprehensive Two-Dimensional High-Performance Liquid Chromatography for the Isolation of Overexpressed Proteins and Proteome Mapping</u> , 1998, Analytical Biochemistry, Vol. 258, 349-361
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BB	Wang et al., <u>Integration of Immobilized Trypsin Bead Beds for Protein Digestion within a Microfluidic Chip Incorporating Capillary Electrophoresis Separations and an Electrospray Mass Spectrometry Interface</u> , Rapid Communications in Mass Spectrometry, 2000, Vol. 14, pages 1377-1383
CC	Xiang et al., <u>An Integrated Microfabricated Device for Dual Microdialysis and On-Line ESI-Ion Trap Mass Spectrometry for Analysis of Complex Biological Samples</u> , 1999, Anal. Chem., Vol. 71, 1485-1490
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FF	Zhang et al., <u>De Novo Peptide Sequencing by Two-Dimensional Fragment Correlation Mass Spectrometry</u> , 2000, Anal. Chem., Vol. 72, 2337-2350.

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

**Copies of references not provided at the time of this submission.